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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|--|-------------|-------------------------|---------------------|------------------|
| 09/761,396 | 01/16/2001 | William R. Moser | 24961-5 | 4778 |
| 7590 05/03/2006 | | | EXAMINER | |
| Robert H. Earp, III | | | NGUYEN, CAM N | |
| 2300 BP Tower, 200 Public Square Cleveland, OH 44114-2378 | | | ART UNIT | PAPER NUMBER |
| | | • | 1754 | |
| | | DATE MAILED: 05/03/2006 | | |

Please find below and/or attached an Office communication concerning this application or proceeding.

| | Application No. | Applicant(s) | | | | |
|---|---|--|--|--|--|--|
| Office Action Summany | 09/761,396 | MOSER ET AL. | | | | |
| Office Action Summary | Examiner | Art Unit | | | | |
| | Cam N. Nguyen | 1754 | | | | |
| The MAILING DATE of this communication app Period for Reply | ears on the cover sheet with the c | correspondence address | | | | |
| A SHORTENED STATUTORY PERIOD FOR REPLY WHICHEVER IS LONGER, FROM THE MAILING DA - Extensions of time may be available under the provisions of 37 CFR 1.13 after SIX (6) MONTHS from the mailing date of this communication. If NO period for reply is specified above, the maximum statutory period was reply received by the Office later than three months after the mailing earned patent term adjustment. See 37 CFR 1.704(b). | ATE OF THIS COMMUNICATION 36(a). In no event, however, may a reply be tin will apply and will expire SIX (6) MONTHS from cause the application to become ABANDONE | N. nely filed the mailing date of this communication. D (35 U.S.C. § 133). | | | | |
| Status | | | | | | |
| 1) Responsive to communication(s) filed on 02/03 | 3/06 (an amendment/response). | | | | | |
| | action is non-final. | | | | | |
| 3) Since this application is in condition for allowar | Since this application is in condition for allowance except for formal matters, prosecution as to the merits is | | | | | |
| closed in accordance with the practice under E | closed in accordance with the practice under Ex parte Quayle, 1935 C.D. 11, 453 O.G. 213. | | | | | |
| Disposition of Claims | | | | | | |
| 4) Claim(s) 1,3,5-7 and 11-28 is/are pending in th | e application. | | | | | |
| 4a) Of the above claim(s) is/are withdrawn from consideration. | | | | | | |
| 5) Claim(s) is/are allowed. | | | | | | |
| 6) Claim(s) <u>1,3,5-7 and 11-28</u> is/are rejected. | | | | | | |
| 7) Claim(s) is/are objected to. | | | | | | |
| 8) Claim(s) are subject to restriction and/or | r election requirement. | | | | | |
| Application Papers | | | | | | |
| 9) The specification is objected to by the Examine | r. | | | | | |
| 10)⊠ The drawing(s) filed on <i>originally filed</i> is/are: a)⊠ accepted or b)□ objected to by the Examiner. | | | | | | |
| Applicant may not request that any objection to the | drawing(s) be held in abeyance. See | e 37 CFR 1.85(a). | | | | |
| Replacement drawing sheet(s) including the correct | | • | | | | |
| 11)☐ The oath or declaration is objected to by the Ex | aminer. Note the attached Office | Action or form PTO-152. | | | | |
| Priority under 35 U.S.C. § 119 | | | | | | |
| 12) Acknowledgment is made of a claim for foreign a) All b) Some * c) None of: | priority under 35 U.S.C. § 119(a) |)-(d) or (f). | | | | |
| 1. Certified copies of the priority documents have been received. | | | | | | |
| 2. Certified copies of the priority documents have been received in Application No. | | | | | | |
| 3. Copies of the certified copies of the prior | • • | | | | | |
| application from the International Bureau | (PCT Rule 17.2(a)). | • | | | | |
| * See the attached detailed Office action for a list | of the certified copies not receive | ed. | | | | |
| | | | | | | |
| Attachment(s) | | | | | | |
| 1) Notice of References Cited (PTO-892) | 4) Interview Summary | | | | | |
| 2) | Paper No(s)/Mail Da 5) Notice of Informal P | ate latent Application (PTO-152) | | | | |
| Paper No(s)/Mail Date | 6) Other: | | | | | |

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DETAILED ACTION

Response to Amendment

1. Applicants' amendment and remarks, filed February 03, 2006, has been made of record and entered. Claims 2, 4, & 8-10 have been canceled. Claims 18-19 have been amended. Claims 27-28 have been added.

Claims 1, 3, 5-7, & 11-28 are currently pending and under consideration.

Claim Rejections - 35 USC § 102(b)

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

- (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.
- 3. Claims 1, 3, 5-7, & 11-28 are rejected under 35 U.S.C. 102(b) as being anticipated by Moser et al., "hereinafter Moser '956", (US Pat. 5,417,956).

Moser '956 discloses nanophase materials including barium, titanate, zirconia, magnesia, iron oxide, lanthana, alumina, and titania, having particle sizes in the nanometer range of from about 1 to 30 nm and are crystalline (see col. 5, ln 23-27). The materials are produced by the same cavitation process (see examples and claims). Table II at col. 6 discloses iron oxide (FeO) having particle size of 1-3 nm and crystallites of about 5%. It is considered the claimed particle sizes and the crystallite strain are met since they fall within the disclosed ranges.

There is no patentable distinction seen between the claimed material and that disclosed by Moser '956.

Response to Applicants' Arguments

4. Applicants' response, filed on February 03, 2006, to the office action dated 9/29/05 has been considered, but not deemed persuasive for the same reasons as set forth in the last office action.

Applicants' further urging on the "crystallographic strain" is also noted. It is not found persuasive because the examiner does not see patentable distinction between the claimed metal based material and that disclosed by the reference.

5. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

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Conclusion

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6. Claims 1, 3, 5-7, & 11-28 are pending. Claims 1, 3, 5-7, & 11-28 are rejected. No claims are allowed.

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Primary Examiner Cam N Nguyen, whose telephone number is 571-272-1357. The examiner can normally be reached on M, W, R, & F, 9:00 AM - 6:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Stanley Silverman, can be reached on 571-272-1358. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

CAM N. NOUYEN PRIMARY EXAMINER

Nguyen/cnn Clan/ May 01, 2006

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